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Canada. Agriculture, Dept. of. Marketing
Service, Economics Division

PROPOSED CHANGES IN FARMING ENTERPRISES

(Changes in Farming Enterprises Within the Next Two or Three Years, as planned
by Farm Operators in Two Mixed Farming Areas of Alberta June and July, 1952.)

Helen C. Abell



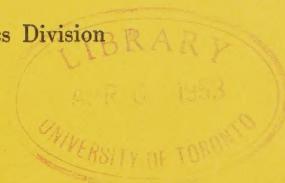
Canada

DEPARTMENT OF AGRICULTURE

Marketing Service

Economics Division

Ottawa, March, 1953



ERRATA

P. 5 Line 1 Occupation should be spelled Occupation.

P. 8 Table 2 Under "Type(s) of Income Producing Farm Enterprises" the ditto marks ("") should be replaced by the word, "above".

P. 8 Table 2 Footnote a/ in line 1 the name Guttam should be spelled Guttman.

P. 17 Footnote b/ line 4, 100.1 should be 100.0.

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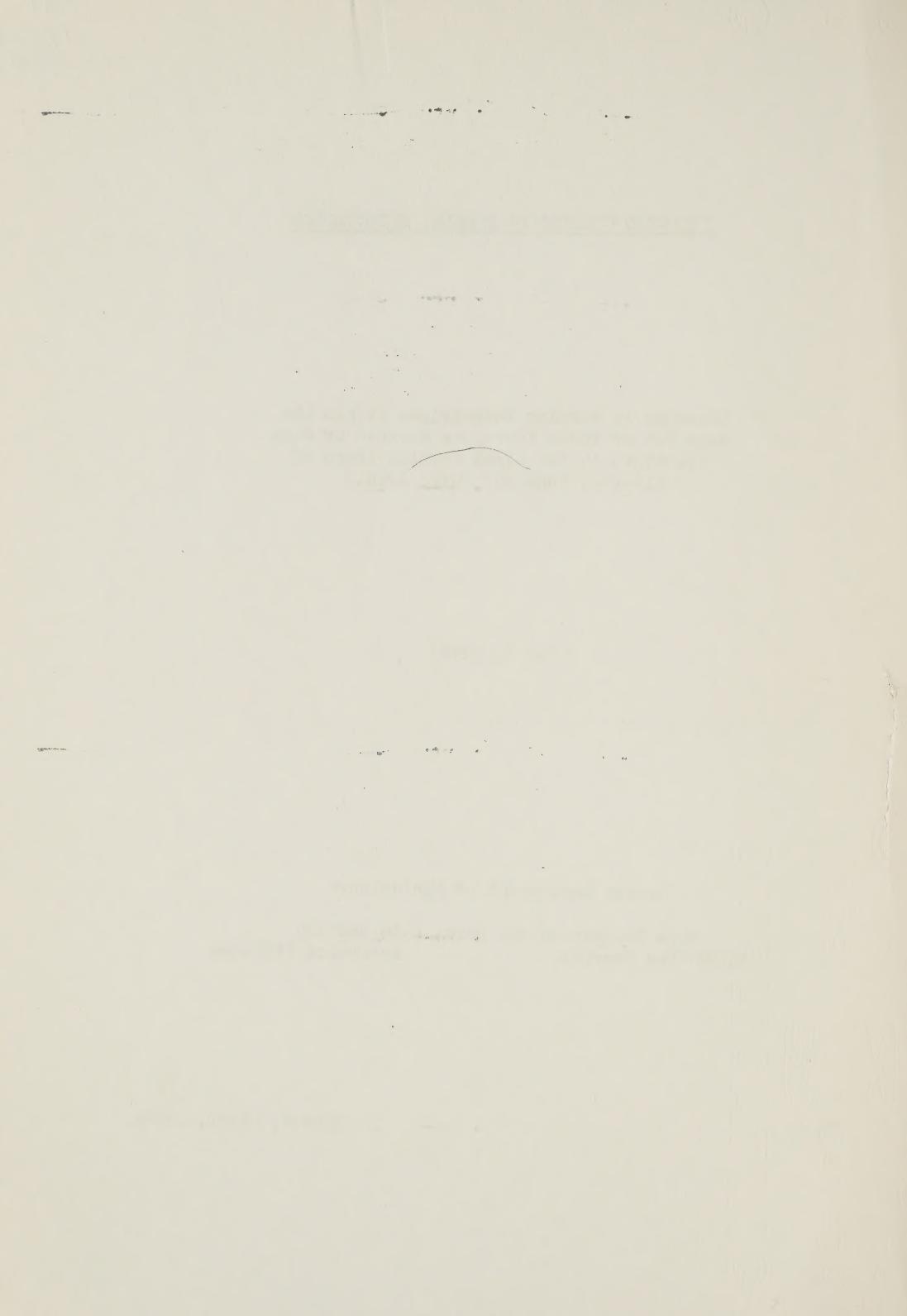
Helen C. Abell

Canada Department of Agriculture

Farm Population and Rural Life Section
Marketing Service. Economics Division

53/14

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PROPOSED CHANGES IN FARMING ENTERPRISES

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PREFACE

As a part of a larger study dealing with factors involved in the choice of alternative farm enterprises in two mixed farming areas of Alberta, farm operators were asked the following questions:

1. Do you intend to make any changes in any farm enterprises within the next two or three years? Yes No Don't know . If yes, which one(s) and why? If no or don't know, why do you not intend to make any changes?

2. If "yes" were checked, the interviewer asked, "What are the chances of being able to make each change which you propose to make?" (A list of several degrees of certainty was checked by the interviewer. These were: Sure, quite sure, it depends, not sure, probably will not.)

3. If "sure" were checked the interviewer asked, "What steps have you taken to bring about this proposed change?" If any category except "sure" were checked, the interviewer asked, "What factor or contingency limits your sureness of being able to carry out this proposed change?"

4. Answers to the above questions have been analyzed and are presented, with a minimum of background, as Report Number Three 1/, based on one specific phase of the larger "Motivation" study. At a later date a detailed report covering the entire study will be made available.

1/ Two short reports dealing with specific phases of this larger study have been released: Report No. 1, "A Methodological Note", published in September, 1952, and Report No. 2, "Alberta Farm Operators and the Level of Living Concept", published in October, 1952. These reports are available on request from the Economics Division, Marketing Service, Canada Department of Agriculture, Ottawa, Canada.

ACKNOWLEDGMENT

It would have been impossible to conduct this study without the co-operation and encouragement of many people.

Appreciation is expressed to the many farm operators and other persons who gave freely of their time during the course of the field work.

Field interviewers were K. Elgaard, B. MacDonald, J. Parfett, H. Sharp, and F. Uhlir.

Help in planning the study was received from senior officers of the Economics Division, Canada Department of Agriculture in both Ottawa and Edmonton.

INTRODUCTION

The Study Areas. - The study was carried on in two mixed farming ^{1/} areas of Central Alberta: (1) Census Sub-division Number 459, Pine Lake, which lies between 45 and 75 miles south of Edmonton and extends roughly between three and 24 miles west of the city of Wetaskiwin, covering an area of about 600 square miles - this is hereafter referred to as the Wetaskiwin area; (2) Census Sub-division Number 339, Bigstone, which lies between 85 to 115 miles south of Edmonton. It is adjacent to the southern and eastern limits of the city of Red Deer, and extends roughly 27 miles from east to west covering an area of about 600 square miles - this is hereafter referred to as the Red Deer area.

The climate in both areas is characterized by moderately warm summer and relatively cold winter temperatures. Average mean temperature for the areas is approximately 36 degrees Fahrenheit. Average annual precipitation is between 16 and 17 inches in each area.

Neither area is prairie. The topography is undulating to gently rolling with some uncultivated arable land still to be found. A considerable amount of undisturbed native tree cover exists, especially in the western part of the Wetaskiwin area.

The farms range in size from less than one-quarter section (160 acres) to over three and one half sections, with farms in the Wetaskiwin area averaging 329 acres and in the Red Deer area averaging 472 acres.

Practically none of the farms had all of the acreage broken or improved. Less than half of the acreage was improved on 34 per cent of the Wetaskiwin farms and on 24 per cent of those in Red Deer. From half to three-quarters of the acreage was improved on 44 per cent of the Wetaskiwin farms and 34 per cent of those in Red Deer, while more than three-quarters of the acreage was improved on 22 per cent of the Wetaskiwin farms and 42 per cent of those in Red Deer.

^{1/} As defined in the "Census of the Prairie Provinces", Dominion Bureau of Statistics, Volume IV, 1946, Introduction, Page xx, "Mixed farms are farms where the revenue from two or more of the main types of products was required to produce 50 per cent or more of the gross revenue".

As revealed by a recent publication (Labour Force: Industry By Sex: Canada and Provinces, Dominion Bureau of Statistics, Ninth Census of Canada, 1951, Bulletin 4-4, Volume IV, Dec. 30, 1952), out of 827,030 persons over 14 years of age in the agricultural labour force in Canada, 392,130 (47.5 per cent) are occupied in mixed farming.

There was a tendency for large farms of 420 or more acres to have less than one half of the acreage improved, but this association was not statistically significant 1/ in either of the rural areas.

Soils in both areas tend to be loam textured and of several types including black, degraded black, and grey wooded soils.

Utilizing soil rating maps 2/ of each area, it was determined that four meaningful categories could be used to describe the relative productivity of the land (in terms of grain production) for the two rural areas.

The term "poor" was applied to soils rating 4.9 or less, "fair" to those rating 5.0 - 5.9, "good" to those 6.0 - 6.9 and "excellent" 7.0 or more. The average soil rating for each area was good, being 6.4 in Wetaskiwin and 6.3 in Red Deer.

Poor or fair land was occupied by 22.8 per cent of the farms in each rural area, good land by 40.6 per cent in Wetaskiwin and 53.2 per cent in Red Deer, while excellent land was occupied by 36.6 per cent of the Wetaskiwin and 24.0 per cent of the Red Deer farms.

No statistical significance was found between the two rural areas with regard to the proportion of farms situated on soils of relatively less or greater productivity. But in each area a very significant association was found in that farms on poor or fair soils tended to have onehalf or less than one half of their acreage improved, while farms on good or excellent soils tended to have more than onehalf of their acreage improved.

The Farm Operators. - A representative sample of one out of every six farm operators in each rural area was visited by a trained interviewer between June 6 and July 14, 1952. A total of 202 interviews was recorded, 123 in the Wetaskiwin area representing

1/ In this study in order to determine the presence of association between two attributes, the Chi Square Test was applied. A Chi square value at less than the 95 per cent level was interpreted to be due to the operation of chance alone (confirmation of the null hypothesis). A value at or above the 95 per cent level was accepted as statistical evidence of association between the two factors. The term "significant" is hereafter used to describe an association at the 95 per cent or up to the 98 per cent level, and the term "very significant" is hereafter used to describe an association at or above the 99 per cent level.

2/ Soil rating maps for each area are found in Reports 14 and 16 of the Alberta Soil Survey. These reports are "Soil Survey of the Peace Hills Sheet" by W.E. Bowser, R.L. Erdman, and F.A. Wyatt, J.D. Newton, University of Alberta, Bulletin Number 48, Edmonton, Canada, September 1947; and "Soil Survey of Red Deer Sheet" by W.E. Bowser, T.W. Peters, and J.D. Newton, University of Alberta, Bulletin Number 51, Edmonton, Canada, 1951.

the total 719 active farm operators in that area and 79 in the Red Deer area representing the total 496 active farm operators in that area.

The farm operators were all adult males with the exception of four widows in the Wetaskiwin area and one widow in the Red Deer area.

About three-quarters of the farm operators were married men living with their wives and children (73 per cent in the Wetaskiwin and 75 per cent in the Red Deer areas). The number of children living at home in these families ranged from one to seven, averaging 2.8, in the Wetaskiwin area, and ranged from one to six, averaging 2.5, in the Red Deer area. The proportion of married farm operators living with their wives, but with no children in the home, was ten per cent in the Wetaskiwin area and 14 per cent in the Red Deer area. Of the remaining farm operators, single men comprised nine per cent in the Wetaskiwin area and seven per cent in the Red Deer area, widowers or widows six per cent in the Wetaskiwin area and four per cent in the Red Deer area; there were two per cent in Wetaskiwin and none in the Red Deer area who were separated from their wives.

There was a significant difference between areas in respect to the number of farm operators who had been born in Canada or in other countries 1/. In the Wetaskiwin area 54 per cent had been born in Canada (51 per cent on farms, three per cent in cities). In the Red Deer area 71 per cent had been born in Canada (63 per cent on farms, eight per cent in cities) while 29 per cent had been born outside of Canada (23 per cent on farms, six per cent in cities).

At the time of the study the average age of the farm operators in the two areas was very similar, being 45.8 years in the Wetaskiwin area and 45.3 years in the Red Deer area. The proportion of operators under 40 years of age was 29 per cent in the Wetaskiwin area and 39 per cent in Red Deer; between 40 and 49 years of age, 35 per cent in Wetaskiwin and 20 per cent in Red Deer; 50 years of age or older, 36 per cent in Wetaskiwin and 41 per cent in Red Deer.

In the process of becoming a farm operator about 37 per cent of the respondents in each area had only two work experiences, that

1/ Of the 46 per cent (57) Wetaskiwin farm operators who were born outside of Canada, 15 per cent were born in Poland, nine per cent in the U.S.A., six per cent in the U.S.S.R., four per cent in the U.K., two per cent in Scandinavian countries and ten per cent in other European countries. Of the 29 per cent (23) of the Red Deer farm operators who were born outside of Canada, 13 per cent were born in the U.K., eight per cent in the U.S.A., four per cent in Scandinavian countries, one per cent in Poland, one per cent in the U.S.S.R., and two per cent in other European countries. Thus in the Wetaskiwin area approximately 33 per cent of the farm operators were born in non-English speaking countries, and in the Red Deer area approximately eight per cent of the farm operators were born in non-English speaking countries.

of working on their fathers' farms followed by becoming the operator of their own farm. Just over one-third of the respondents in each area had had three work experiences: they all started by working on their fathers' farms, then most of them took jobs away from the farm (20 per cent in Wetaskiwin and 30 per cent in Red Deer) while the others worked as hired men for other farmers (14 per cent in Wetaskiwin and six per cent in Red Deer), and lastly they all became farm operators. The remaining respondents had gone through two to seven different work experiences before becoming farm operators. Three was the average number of work experiences for respondents in each area.

From this information it is easily recognized that the farm operators in this study were all experienced farmers. They had, on an average, spent between 12 and 13 years on a farm before reaching the age of 16.

The most common form of farm tenure was ownership. About two-thirds of the operators (68 per cent in the Wetaskiwin area and 65 per cent in the Red Deer area) owned all of the land they operated. Over 20 per cent (21 per cent in the Wetaskiwin area, 23 per cent in the Red Deer area) owned some and rented some of the land they operated. Only 11 per cent of the Wetaskiwin farm operators, and 12 per cent of those in Red Deer, rented the land on which they were farming.

There was a very significant difference between the educational level of the farm operators in the two rural areas. In Wetaskiwin the average number of years of schooling for farm operators was 7.0, in the Red Deer area it was 8.2. Forty-three per cent of Wetaskiwin farm operators had seven years or less of formal education as compared with 22 per cent in the Red Deer area. Grade eight had been completed by 37 per cent of the Wetaskiwin respondents and by 34 per cent of those in Red Deer. More than eight grades of education (some High School or High School plus College or other advanced training) had been acquired by 20 per cent of the Wetaskiwin respondents and by 44 per cent of those in Red Deer.

In each of the rural areas a significantly higher proportion of the farm operators who were less than 50 years of age (compared with the number of operators 50 years of age or older), had completed eight or more years of formal schooling.

A few respondents in each area were unable to read or to write in English. There were 8.9 per cent of the Wetaskiwin respondents in this category, of whom 5.7 per cent were 50 or more years of age. There were 2.5 per cent of the Red Deer respondents in this category, all of whom were 50 or more years of age.

Reasons for Choosing Farming As An Occupation.— In this study all of the respondents were asked their reason or reasons for choosing farming as an occupation. There was no significant difference between the types of responses given by farm operators in the two rural areas.

Three main types of reasons (singly or in combination) were given. These were:

1. The respondent had been trained to be a farmer and/ or there was an opportunity to take over a farm - in most instances this was a case of a son taking over a parent's farm (opportunity). This answer alone was given by 10.6 per cent of the Wetaskiwin respondents and by 7.6 per cent of those in the Red Deer area.
2. Enjoyment of farming as a type of work and the independence associated with farming (preference). This answer alone was given by 9.8 per cent of Wetaskiwin respondents and 7.6 per cent of Red Deer respondents.
3. Lack of training for any other type of work or the need, when younger, to help on a parent's farm (necessity). This answer was given by 8.1 per cent of the Wetaskiwin respondents and 5.1 per cent of those in the Red Deer area.
4. Two reasons, preference and opportunity, were given by 29.2 per cent of Wetaskiwin respondents and by 39.2 per cent of Red Deer respondents.
5. Three reasons, preference, opportunity, and necessity, were given by 18.7 per cent of Wetaskiwin respondents and 21.5 per cent of those in the Red Deer area.
6. Two reasons, opportunity and necessity, were given by 17.1 per cent of the Wetaskiwin respondents and by 13.9 per cent of those in the Red Deer area.
7. Two reasons, preference and necessity, were given by 6.5 per cent of the Wetaskiwin respondents and 5.1 per cent of the Red Deer respondents.

Thus the most frequently mentioned reason for choosing farming as an occupation was the existence of training and experience and a chance to take over an established farm, with or without other factors. The second most frequently mentioned reason was a preference for farming, with or without other factors. The least mentioned reason was lack of training for other work, as well as having been needed on the home farm when a youth, with or without other factors.

PRESENT FARMING ENTERPRISES

The farm operators were asked whether they did or did not carry on each of six specific farming enterprises: grain, beef cattle, dairy cattle, hogs, poultry and eggs, and sheep. They were also asked to discuss any other farming enterprises in which they were engaged.

All of the respondents produced grain, chiefly barley and oats, with some wheat and other grains. Beef cattle were on the farms of 93 per cent of the Wetaskiwin operators and 91 per cent of the Red Deer operators. Dairy cattle were on 92 per cent of the Wetaskiwin and 91 per cent of the Red Deer farms. Hogs were on 93 per cent of the Wetaskiwin and 80 per cent of the Red Deer farms. Poultry (chickens) were on 85 per cent of the Wetaskiwin and on 76 per cent of the Red Deer farms. Sheep were on seven per cent of the Wetaskiwin and on four per cent of the Red Deer farms. Very few other enterprises were mentioned; however a few farms in each area had turkeys or geese, clover seed, alfalfa, bees and potatoes.

General Reasons for Existing Enterprises.— Answers to the question of why each of the six specified enterprises were or were not carried on revealed in general that:

A.— Enterprises were carried on, 1. as a direct source of income (39 per cent of the Wetaskiwin operators, 43 per cent of the Red Deer operators), 2. as supplementary to another enterprise; for example beef cattle as a "by-product" of the dairy herd, or grain and forage crops as livestock feed, (14 per cent of the Wetaskiwin operators, 13 per cent of the Red Deer operators), 3. as a source of food or fibre for home consumption (11 per cent of the Wetaskiwin farm operators, eight per cent of the Red Deer farm operators), 4. as a way of utilizing available farm land or labour (ten per cent of the Wetaskiwin farm operators and eight per cent of the Red Deer operators), 5. as an easy or pleasant enterprise for the farmer to handle (four per cent of the Wetaskiwin farm operators and one per cent of the Red Deer farm operators);

B.— Enterprises were not carried on because, 1. farmer disliked the enterprise and/or lacks time or labour supply to handle it (eight per cent of the Wetaskiwin farm operators, 12 per cent of the Red Deer operators), 2. necessary land, buildings, or capital are lacking (ten per cent of the operators in each rural area), 3. the farmer has had an unsuccessful past experience with the enterprise (three per cent of the Wetaskiwin and four per cent of the Red Deer farm operators), 4. only one per cent of the operators in each rural area did not give a reason why they were not carrying on various enterprises.

PRESENT REVENUE-PRODUCING FARMING ENTERPRISES

Number and Type.- In each of the areas the number of farming enterprises from which farm operators obtained revenue ranged from one to six with an average of approximately four. Table 1, page seven, shows that in the Wetaskiwin area the most common (or modal) number of revenue-producing enterprises was five, while in the Red Deer area it was four.

Table 1.- Number of Revenue-Producing Farm Enterprises,
Two Mixed Farming Areas, Alberta, 1952

	:	Wetaskiwin	:	Red Deer
Range		1 - 6		1 - 6
Average		4.30		3.96
Mode		5		4
Median		5		4

Analysis was carried out to determine whether any ordered pattern or consistency existed between the number and types of farming enterprises carried on by farm operators as sources of income.

It was found, for each rural area, that when an operator had only one source of income it tended to be grain 1/; two sources of income tended to be grain and beef cattle; three tended to be grain, beef cattle, and hogs; four tended to be grain, beef cattle, hogs and dairy cattle; five tended to be grain, beef cattle, hogs, dairy cattle and poultry; six tended to be grain, beef cattle, hogs, dairy cattle, poultry, and the last enterprise was different for each area, being sheep in the Wetaskiwin area, and clover seed in the Red Deer area.

Table 2, page eight, for each of the rural areas, shows the number and types of farming enterprises carried on by farm operators as their sources of income for the year preceding the time of the study.

1/ Grain in this study includes barley, and/or oats, and/or wheat.

Table 2.- Number and Type of Income-Producing Farm Enterprises,
Farm Operators in Two Mixed Farming Areas,
Alberta, 1952 a/

No. of Enterprises	Farm Operators Having :		
	Specific No. of Enterprises	Type(s) of Income-Producing Farm Enterprises	
Wetaskiwin: Red Deer			
		- per cent -	
One	1.6	5.1	Grain
Two	4.1	7.6	" " beef cattle
Three	11.4	12.7	" " hogs
Four	32.5	39.2	" " dairy cattle
Five	46.3	31.6	" " poultry & eggs
Six	4.1	3.8	" " (sheep in Wetaskiwin, clover seed in Red Deer)
Total farm operators per cent	100.0	100.0	
Total farm operators number	123	79	

a/ This table is based on the use of the Guttman Scale Analysis Technique which is primarily used in scaling qualitative sociological data. The acceptable coefficient of reproducability in using this scale is 90.0 per cent. In Table 2, page eight, the coefficient of reproducability for the Wetaskiwin area is 94.2 per cent, and for the Red Deer area it is 94.1 per cent. For a discussion of the application of scale analysis see Stouffer, Samuel A. and others, "Measurement and Prediction", (Studies in Social Psychology in World War II, Volume 4), Princeton University Press, 1950.

Relative Contribution to Gross Farm Income.— In this study the farm operators were not asked how much income they had actually received over the year from each farming enterprise. They were asked to indicate the relative importance of each of their farming enterprises in terms of the income it had produced for them over the past 12 months.

With this information, and by the use of a simple weighting procedure, it was possible to estimate the relative economic importance contributed by each farming enterprise for all farmers in each of the mixed farming areas.

The mixed farming nature of each rural area is clearly indicated in Table 3, page nine, where it is seen that no two enterprises quite accounted for 50 per cent of the gross farm revenue. In each area the same five farm enterprises, hogs, beef cattle, dairy cattle, grain, poultry and eggs, accounted for approximately 98 per cent of the gross farm revenue, although the relative importance of these

enterprises was slightly different in the two areas.

Table 3.- Relative Contribution of Various Farm Enterprises to Gross Farm Income, Two Mixed Farming Areas, Alberta, 1952

Enterprise	Proportion of:		Proportion of Farm Income
	Farm Income	Enterprise	
Hogs	24.1	Beef cattle	25.2
Beef cattle	23.4	Grain	24.2
Dairy cattle	21.4	Hogs	22.1
Grain	20.5	Dairy cattle	19.0
Poultry and eggs	8.6	Poultry and eggs	7.9
Sheep	1.0	Sheep	0.7
Forage seed (clover or hay)	0.5	Clover seed	0.3
Turkeys or geese	0.4	Bees	0.3
Bees	0.1	Potatoes	0.2
		Turkey and geese	0.1
Total	100.0	Total	100.0

INTENTION TO MAKE FUTURE CHANGES IN FARMING ENTERPRISES

When the respondents were asked about their plans to make changes in any of their farming enterprises within the next two or three years, it was found that more than three-fifths of them do intend to make changes.

Reasons for not making changes were of three types, satisfaction with present farm organization, personal reasons preventing changes from being considered and factors beyond the farm operator's control.

Table 4, page ten, shows the proportion of farm operators intending to make changes in their farming enterprises within the next two or three years, and the proportion who gave various reasons for not making any changes.

Intention to Change as Related to Certain Attributes.- Before attempting further discussion of the nature of the proposed changes in farming enterprises, it is timely to present some of the attributes associated with those farm operators who do or do not plan to take this step in the future.

Theoretically an indefinite number of attributes could reasonably be expected to be associated with intention to change farming enterprises in the future. Some 13 attributes were correlated with intention

Table 4.- Intention Concerning Future Change in Farming Enterprises,
Farm Operators, Two Mixed Farming Areas, Alberta, 1952

	Farm Operators			
	: Wetaskiwin		: Red Deer	
	: No.	%	No.	%
Will make changes (specific changes were stated)	76	61.8	50	63.3
Will not make changes (present farm organization satisfactory)	19	15.4	17	21.6
Will not make changes (due to personal reasons involving himself or family: "too old", "too busy", "sons taking over farm soon", "self or son ill", "no money for changes".)	10	8.1	5	6.3
Will not make changes (due to factors beyond his control: "Soil or topography limits choice", "tenure uncertain", "plans depend on market conditions", "depends on hail or frost".)	6	4.9	5	6.3
Will not make changes (no reason given)	12	9.8	2	2.5
Total	123	100.0	79	100.0

to change, with the following results:

A. Attributes Significantly Associated with Intention to Change Farming Enterprises within the Next Two or Three Years.

1. Age.- In both rural areas a very significant association was found. Farm operators who were less than 50 years of age did tend to plan future farm changes while operators 50 or more years of age did not plan to do so.

2. Labour Efficiency.- ^{1/} In both rural areas a significant association was found. Farm operators who were rated as medium

^{1/} Labour efficiency is a measure of the amount of labour required to perform a specific amount of farm work. This measure takes into account the directly productive work accomplished on the farm, within a 12 month period, by the farm labour force as measured in man equivalents. Numerically the labour efficiency rating per farm in this study ranged from 43 to 1,603, averaging 198.5 in the Wetaskiwin area and 275.4 in the Red Deer area. Thus a low labour efficiency rating was a score of 163 or less (42 per cent of the Wetaskiwin farms and 22 per cent of the Red Deer farms), a medium labour efficiency rating was a score of 164 to 251 (33 per cent of the Wetaskiwin farms and 34 per cent of Red Deer farms), and a high labour efficiency rating was a score of 252 or more (25 per cent of Wetaskiwin farms and 44 per cent of Red Deer farms). It was found that a very significantly higher proportion of Red Deer farm operators than Wetaskiwin farm operators were categorized as high in labour efficiency.

or as high in labour efficiency did tend to plan future farm changes, while operators who were categorized as low in labour efficiency did not plan to do so.

3. Country of Birth.- In both rural areas a significant association was found. Farm operators who had been born in Canada did tend to plan future farm changes while farm operators who had been born in countries other than Canada (especially those from non-English speaking countries) did not plan to do so.

4. Man Equivalents.- 1/ In the Red Deer area a significant association was found, while the same type of association was indicated (but was not statistically significant) in the Wetaskiwin area. Farm operators whose farms were categorized as low or medium in terms of man equivalents did tend to plan future farm changes, while operators whose farms were categorized as high in terms of man equivalents did not plan to do so.

B. Attributes Tending to be Associated (But Not at a Statistically Significant Level) with Intention to Change Farming Enterprises within the Next Two or Three Years.

5. Education.- In both rural areas a higher proportion of farm operators who had eight or more years of schooling completed, (than of operators with less than eight grades of education) expressed their intention of making future changes in farming enterprises within the next two or three years. Statistically the degree of association between education and intention to change enterprises, for both areas, was over the 90 per cent but did not reach the 95 per cent level.

1/ Man equivalent is a measure of the amount of human labour exercised on one farm over a 12 month period. It takes into account the number of persons working on the farm and the number of months worked by each person, e.g. a man equivalent rating of 1.0 would indicate that one person worked full time for 12 months on the farm, a rating of over 1.0 indicates that more than one person worked for 12 months on the farm. The average man equivalent rating for the two rural areas was 1.83 in the Wetaskiwin area and 1.78 in the Red Deer area. Categorization as low in man equivalents was given for farms rating 1.40 or less (27 per cent of Wetaskiwin farms and 43 per cent of Red Deer farms), medium for farms rating 1.41 to 2.02 (41 per cent of Wetaskiwin farms and 23 per cent of Red Deer farms), and high for farms rating 2.03 or more (32 per cent of Wetaskiwin farms and 34 per cent of Red Deer farms).

In terms of man equivalents the two rural areas were very significantly different in that the Wetaskiwin area had 28 per cent of the farms with a low man equivalent of 1.40 or less and the Red Deer area had 43 per cent of the farms with this low man equivalent. This would indicate that a smaller labour force was active on Red Deer than on Wetaskiwin farms.

6. Number of Work Experiences.- In both rural areas a higher proportion of farm operators who had four or more work experiences (than of operators who had three or fewer work experiences) expressed their intention of making future changes in farming enterprises within the next two or three years. Statistically the degree of association between number of work experiences and intention to change enterprises for both areas was over the 70 per cent level but did not reach the 95 per cent level.

7. Number of Income-Producing Farm Enterprises.- In both rural areas a higher proportion of farm operators who had four or fewer income-producing farm enterprises (than of operators having more than four such enterprises) expressed their intention of making future changes in farming enterprises within the next two or three years. Statistically the degree of association between number of income-producing farm enterprises and intention to change enterprises for the Wetaskiwin area was over the 85 per cent level and for the Red Deer area it was over the 60 per cent level. But in neither area was the association at the 95 per cent level.

8. Soil Rating.- In both rural areas a higher proportion of farm operators whose farms were located on good or on excellent soils (than of operators located on fair or poor soils) expressed their intention of making changes in farming enterprises within the next two or three years. Statistically the degree of association between soil rating and intention to change enterprises was over the 50 per cent level but did not reach the 95 per cent level.

9. Socio-Economic Level.- 1/ In both rural areas a slightly larger

1/ Socio-economic level was determined in this study by use of the Edwards scale for rating socio-economic levels. This scale takes cognizance of the presence or absence of some 27 different material and cultural items in the home of each farm operator. By this method the level of living or socio-economic status of the respondent is determined objectively. The development and use of this scale is discussed in "A Scale for Rating Socio-economic Levels in Rural Western Canada", Florence M. Edwards, Economics Division, Canada Department of Agriculture, University of Alberta, August, 1946. In this study a score of 0 to nine was categorized as low (9.8 per cent of the Wetaskiwin farm operators and 10.1 per cent of the Red Deer operators); a score of ten to 18 was categorized as medium (57.7 per cent of the Wetaskiwin farm operators and 24.1 per cent of the Red Deer operators); a score of 19 to 27 was categorized as high (32.5 per cent of the Wetaskiwin operators and 65.8 per cent of the Red Deer operators). The two rural areas were very significantly different in that approximately one-third of the Wetaskiwin farm operators were scored at a high socio-economic level while approximately two-thirds of the Red Deer farm operators were at this level.

proportion of farm operators with a low socio-economic level rating (than of operators with a medium or high rating) expressed their intention of making changes in farming enterprises within the next two or three years. In the Wetaskiwin area this association was at the 50 per cent level and in the Red Deer area at the 20 per cent level, but in neither area was it at the 95 per cent level.

10. Size of Farm in Acres.- In the Wetaskiwin area a higher proportion of farm operators on large farms of 420 or more acres, (than of operators on farms of less than 420 acres) expressed their intention of making future changes in farming enterprises within the next two or three years. Statistically the degree of association between location on a large-sized farm and the operator's intention to change enterprises was only at the 30 per cent level of association. There was no association between size of farm and operator's intention to change enterprises in the Red Deer area.

C. Attributes Tending to be Associated (But not at a Statistically Significant Level) with Intention to Change Farming Enterprises within the Next Two or Three Years.

These attributes are not associated similarly in the two rural areas.

11. Proportion of Improved Farm Acreage.- In the Wetaskiwin area a higher proportion of farm operators who had more than one-half of their farm acreage in improved land (than of operators having less than one half of their farm acreage in improved land) expressed their intention of making future changes in their farming enterprises. This association was only at the 20 per cent level. In the Red Deer area a higher proportion of farm operators who had less than one half of their farm acreage in improved land (than of operators having more than one half) expressed their intention of making future changes in their farming enterprises. This association was at the 80 per cent level.

12. Productive Man Work Units.- 1/ In the Wetaskiwin area a larger

1/ Productive Man Work Units is a measure of the size of the farm business. It measures the number of ten hour days of directly productive work accomplished on a farm in one year. Acreage of each type of crop and numbers of each type of livestock are multiplied by given factors. The resultant figure is the number of productive man work units (hereafter referred to as PMWU) for the farm. In this study the number of PMWU for the Wetaskiwin area ranged from 65 to 800, averaging 343.9, and for the Red Deer area ranged from 96 to 1,161, averaging 453.7. Farms with less than 266 PMWU were categorized as low (36 per cent of Wetaskiwin farms and 28 per cent of Red Deer farms); farms with 266 to 429 PMWU were categorized as medium (37 per cent of Wetaskiwin farms, 28 per cent of Red Deer farms); farms with 430 or more PMWU were categorized as high (27 per cent of Wetaskiwin farms, 44 per cent of Red Deer farms). The two rural areas were significantly different in that a larger proportion of Red Deer than of Wetaskiwin farms were categorized as high in PMWU.

proportion of farm operators whose farms were categorized as high (430 or more) in PMWU (than of operators whose farms were categorized as low or medium) expressed their intention of making future changes in their farming enterprises. This association was at the 70 per cent level. In the Red Deer area a larger proportion of farm operators whose farms were categorized as low or as medium (less than 430) in PMWU (than of operators whose farms were categorized as high) expressed their intention of making future changes in their farming enterprises. This association was at the 85 per cent level.

13. Family Composition.- In the Wetaskiwin area a higher proportion of farm operators who were living with their wives and children (than those operators with no wife or children) expressed their intention of making future changes in their farming enterprises. This association was only at the 50 per cent level. In the Red Deer area a higher proportion of single and widowed farm operators (than of operators living with their wives and children) expressed their intention of making future changes in their farming enterprises. This association was only at the 20 per cent level.

NATURE OF PROPOSED CHANGES IN FARMING ENTERPRISES

More than three-fifths of the farm operators in each of the rural areas stated that they intended to make changes in one or more farming enterprises within the next two or three years. The average number of enterprises affected was approximately two (2.02 in Wetaskiwin area and 1.92 in the Red Deer area).

In most cases plans are to initiate or to increase specific enterprises although certain enterprises will be decreased or dropped entirely.

In the Wetaskiwin area 154 different changes are planned, 126 of which will be increases in farming enterprises and 28 of which will be decreases. This is a ratio of 4.5 planned increases for each planned decrease. In the Red Deer area 96 different changes are planned, 82 of which will be increases in farming enterprises and 14 of which will be decreases. This is a ratio of 5.9 planned increases for each planned decrease.

The farming enterprises which will be most affected by these planned changes are forage crops, beef cattle, dairy cattle, and hogs but some nine other enterprises will be affected in minor degrees.

A detailed tabulation of these proposed changes in farming enterprises is reported in Appendix A which indicates the number, direction, type, and combination of proposed changes for farm operators in each of the two rural areas.

Although more than three-fifths of the farm operators in each rural area stated that they planned to make changes in one or more of their farming enterprises within the next two or three years, not all of these operators were sure that they would be able to carry out their plans.

In the Netaskiwin area where 154 different changes were mentioned, only 80 (52 per cent) of these were described as "sure" of being carried out. In the Red Deer area where 96 different changes were mentioned, only 55 (57 per cent) of these were described as "sure" of being carried out.

Some insight into the future agricultural pattern in these rural areas is provided in Tables 5 and 6, pages 16 and 17. In these tables the nature of the proposed changes is presented. They describe the number of farm operators proposing to change each enterprise, the direction and degree of certainty associated with each change and the relative contribution each enterprise may reasonably be expected to make to future changes in the agricultural pattern of each rural area.

From the information in Tables 5 and 6 it may be assumed that within the next two or three years an increasingly higher proportion of agricultural production in each of these two mixed farming areas will be livestock, particularly beef cattle, as well as hogs and dairy cattle. Some slight increase will be made in sheep and poultry production. There will be a large increase in forage crop production and a very slight increase in wheat and small grains. In both rural areas there is evidence that the practice of summerfallowing is decreasing.

Table 5.- Nature of Proposed Future Changes in Farming Enterprises,
Farm Operators in the Wetaskiwin Area ^{a/} of Alberta, 1952

Enterprise:	Change:	Total:	Direction and Certainty of Changes			Total:	Sure:	Probable:	Enterprise ^{b/}	Relative Proportion of Net Change Contributed by
			Increased	Decreased	Production					
Forage crops	32	31	21	10	1	1	0	30.9	+	
Beef cattle	41	36	19	17	5	1	4	30.2	+	
Dairy cattle	33	23	12	11	10	7	3	11.1	+	
Hogs	23	17	5	12	6	0	6	9.9	+	
Sheep	4	4	3	1	0	0	0	4.3	+	
Wheat	8	6	2	4	2	2	0	3.7	+	
Poultry	4	4	2	2	0	0	0	3.7	+	
Barley & oats	4	3	2	1	1	0	1	1.9	+	
Summerfallow	2	0	0	0	2	1	1	1.9	-	
Flax	1	1	1	0	0	0	0	1.2	+	
Registered cat seed	1	1	1	0	0	0	0	0.6	+	
Rye	1	0	0	0	1	0	1	0.6	-	
Total	154	126	68	58	28	12	16	100.0		

^{a/} In this rural area 76 of the 123 respondents plan to make changes. These 76 operators each propose making an average of 2.02 changes. Thus a total number of 154 changes are planned, of which, in most cases more than one change is planned by each operator.

^{b/} To obtain a proportional net change figure for comparative purposes, the following procedure was followed: A weight of +2 was assigned for each sure increase, +1 for each probable increase, -2 for each sure decrease and -1 for each probable decrease. The resultant figure represented a net change for each enterprise. The sum of these net changes, regardless of an increase or decrease in production, yielded the figure of 162 which was taken as 100.0 in calculating the relative proportion of net change contributed by each enterprise. Thus forage crops will contribute approximately one-third of the future net change, which will be increased production as reported by the use of the symbol "+". Net decrease in production is reported as "-".

Table 6.- Nature of Proposed Future Changes in Farming Enterprises,
 Farm Operators in the Red Deer a/
 Area of Alberta, 1952

Enterprise:	Change	Total:	Direction and Certainty of Change		Relative Proportion		Enterprise <u>b/</u>	
			Operators:		Increased	Decreased		
			Planning:		Production	Production		
			:	:	:	:		
Beef cattle	29	25	16	9	4	2	2	32.1 $\frac{1}{4}$
Hogs	23	20	11	9	3	2	1	23.8 $\frac{1}{4}$
Forage crops	18	17	9	8	1	0	1	22.9 $\frac{1}{4}$
Dairy	11	9	4	5 $\frac{1}{2}$	2	1	1	9.2 $\frac{1}{4}$
Summerfallow	2	0	0	0 $\frac{1}{2}$	2	2	0	3.7 -
Poultry	4	3	2	1	1	1	0	2.8 $\frac{1}{4}$
Wheat	6	4	3	1	2	2	0	2.8 $\frac{1}{4}$
Sheep	1	1	0	1	0	0	0	0.9 $\frac{1}{4}$
Red fescue	1	1	0	1	0	0	0	0.9 $\frac{1}{4}$
Flax	1	1	0	1	0	0	0	0.9 $\frac{1}{4}$
Total	96	81	45	36	15	10	5	100.0

a/ In this rural area 50 of the 79 respondents plan to make changes. These 50 operators each propose making an average of 1.96 changes. Thus a total number of 96 changes are planned of which, in most cases, more than one change is planned by each operator.

b/ Footnote b/ in Table 5, page 16, explains the method by which a proportional net change figure was obtained. In the Red Deer area the sum of the net changes was the figure 109 which was taken as 100.1 in calculating the relative proportion of net change contributed by each enterprise.

REALIZATION OF PLANS TO CHANGE FARMING ENTERPRISES

It is fully appreciated that the best laid plans often do not materialize. For this reason farm operators who stated that they were sure of carrying out their plans were asked what steps they had taken to accomplish these changes. Farm operators who stated that they were not sure of carrying out their plans were asked what factor (or contingency) might prevent them from accomplishing these changes.

In the Wetaskiwin area 158 different changes were mentioned of which 126 were plans to increase production (66 were stated as sure of being carried out, 60 as uncertain of being carried out) and 32 were plans to decrease production (16 were stated as sure of being carried out, 16 as uncertain of being carried out).

In the Red Deer area 96 different changes were mentioned, of which 81 were plans to increase production (36 were stated as sure of being carried out, 45 as uncertain of being carried out) and 15 were plans to decrease production (five were stated as sure of being carried out, ten as uncertain of being carried out).

Some understanding of the complexities involved in the realization of farm operators' plans to make future changes in their farming enterprises may be obtained by an examination of the following information. It describes the frequency with which various factors operate in relation to the realization of future proposed changes in each type of farming enterprise in each of the two mixed farming areas.

A: Steps Taken to Ensure Planned Increases in Production.-- In both of the rural areas more than half of the planned increases in production were stated as sure of being accomplished. These numbered 66 in the Wetaskiwin area (52 per cent of all planned increases) and 45 in the Red Deer area (56 per cent of all planned increases).

The most frequently mentioned way of ensuring increased production was to have already started to raise or purchase the necessary livestock or to have planted or have on hand the necessary seed for various crops. This factor was mentioned 30 times for livestock in the Wetaskiwin area (16 times in relation to beef cattle, nine times in relation to dairy cattle, three times in relation to sheep and twice in relation to hogs) and 23 times for livestock in the Red Deer area (14 times in relation to beef cattle, five times in relation to hogs, three times in relation to dairy cattle and once in relation to poultry). This same factor was mentioned 16 times for crops in the Wetaskiwin area (15 times in relation to forage crops and once in relation to wheat) and was mentioned eight times in the Red Deer area (seven times in relation to forage crops and once in relation to wheat).

The next most frequently mentioned step that had been taken to increase production was to have increased the necessary feed supply to handle livestock increases or to have acquired and prepared the necessary acreage for crop increases. This factor was mentioned three times in the Wetaskiwin area where feed supply had been increased to handle livestock increases (twice in relation to hogs and once in relation to beef cattle) and twice in the Red Deer area (once in relation to hogs and once in relation to dairy cattle). This same factor was mentioned three times in the Wetaskiwin area where acreage had been increased for future crop production (once in relation to each of wheat, flax, and barley and oats) and mentioned twice in the Red Deer area in relation to wheat.

The third most frequently mentioned step that had been taken was to have erected the required buildings. This factor was mentioned four times in the Wetaskiwin area (three times in relation to dairy cattle and once in relation to hogs) and three times in the Red Deer area in relation to hogs.

The step taken to increase production that was mentioned least frequently was that the labour requirement had been re-organized to handle the planned increases. This factor was mentioned once in the Wetaskiwin area in relation to beef cattle and was mentioned three times in the Red Deer area (twice in relation to beef cattle and once in relation to hogs).

Some respondents stated that they had not as yet taken any definite step to ensure their planned production increases but they also said that there was nothing to prevent them. This response was given nine times in the Wetaskiwin area (six times in relation to forage crops, twice in relation to poultry, and once in relation to beef cattle) and was given four times in the Red Deer area (twice in relation to forage crops and once in relation to each of hogs and poultry).

B: Steps Taken to Ensure Planned Decreases in Production.— Relatively few planned changes (12 in the Wetaskiwin area and ten in the Red Deer area) were stated as sure decreases in production. In both areas the most common step taken by operators who were sure of decreasing an enterprise was to have taken steps to increase production of an alternative enterprise (seven in the Wetaskiwin area, five in the Red Deer area). Enterprises thus affected are: 1. dairy cattle, two Wetaskiwin and one Red Deer respondent are decreasing dairy cattle and increasing beef cattle; 2. beef cattle, one Wetaskiwin farm operator is decreasing beef cattle and is building the necessary barns to handle dairy cattle; 3. forage crops, one Wetaskiwin operator whose forage fields (meadows) are "worn out" is replacing this crop with wheat; 4. wheat, two Wetaskiwin and two Red Deer respondents are decreasing wheat and increasing forage crop production to improve the soil fertility; 5. summerfallow, one Wetaskiwin and two Red Deer respondents are decreasing their acreage of summerfallow and increasing forage crop production to improve the soil fertility.

None of the other sure decreases in farming enterprises was accompanied by mention of corresponding increases in alternative enterprises. However reasons for making these changes were in most cases stated. The most common reason was to lessen work for the farm operator. Four Wetaskiwin operators and one from Red Deer gave this reason and for all four of the Wetaskiwin operators this reason was given for decreasing the dairy cattle enterprise. The Red Deer operator gave this reason for decreasing his beef cattle enterprise.

Another reason for decreasing enterprises was that the operator's farm was too small to be able to handle the enterprise. This reason was given only in the Red Deer area and was stated by one operator in relation to his beef cattle enterprise and by another in relation to his poultry enterprise.

A third reason, given by one Red Deer operator in relation to his hog enterprise, was that he was getting rid of these animals in order to eradicate disease from his livestock.

Only two sure decreases were unaccompanied by any detailed explanation. These were stated by one operator in the Wetaskiwin area, in relation to his dairy enterprise, and by one operator in the Red Deer area in relation to his hog enterprise. Both of these operators stated that they were sure of making the specified decreases, had taken no steps to bring about the change but there was nothing to prevent them from doing so.

C: Factors Making Planned Production Increases Uncertain.—In both of the rural areas less than half of the planned increases in production were stated as uncertain of being accomplished. These numbered 60 in the Wetaskiwin area (48 per cent of all planned increases) and 36 in the Red Deer area (44 per cent of all planned increases).

Three main contingencies as well as eight others were given. These three were: (1) lack of required capital, mentioned 20 times in the Wetaskiwin area (seven times in relation to increases in beef cattle, seven times in relation to dairy cattle, twice in relation to hogs, once in relation to sheep, twice in relation to forage crops and once in relation to wheat) and mentioned seven times in the Red Deer area (five times in relation to beef cattle, once in relation to dairy cattle and once in relation to sheep); (2) dependence on high and stable prices for the enterprise in the future, mentioned 15 times in the Wetaskiwin area (six times in relation to increases in beef cattle, five times in relation to hogs, twice in relation to dairy cattle and once in relation to forage crops) and mentioned three times in the Red Deer area (once in relation to each of hogs, dairy cattle, and forage crops); (3) dependence on ability of operator to provide necessary feed, pasture or cropland, mentioned ten times in the Wetaskiwin area (three times in relation to hogs, twice in relation to each of beef cattle, forage crops, and barley and oats, once in relation

to wheat) and mentioned 12 times in the Red Deer area (six times in relation to hogs, three times in relation to forage crops, twice in relation to beef cattle and once in relation to wheat).

The other factors making planned increases uncertain were: (4) dependence on obtaining necessary buildings or of obtaining electricity in the barn, mentioned three times in the Wetaskiwin area (twice in relation to dairy cattle and once in relation to poultry) and mentioned four times in the Red Deer area (twice in relation to dairy cattle and once in relation to each of hogs and poultry); (5) dependence on increasing livestock was the factor on which increased forage crop production was contingent; this was mentioned three times in the Wetaskiwin area and twice in the Red Deer area; (6) dependence on obtaining the required family or hired labour, was mentioned twice in the Wetaskiwin area (once in relation to each of beef and hogs) and mentioned three times in the Red Deer area (twice in relation to beef and once in relation to hogs); (7) dependence on remaining on the farm - insecure tenure, mentioned once in the Wetaskiwin area in relation to beef cattle and three times in the Red Deer area (once in relation to each of dairy cattle, red fescue, and flax); (8) dependence on ability to control disease in livestock or to clear the land of weeds, mentioned twice in the Wetaskiwin area (once in relation to each of hogs and registered oat seed), and mentioned once in the Red Deer area in relation to forage crops; (9) a drop in the price of a current enterprise would bring about an increase in wheat production, as stated twice in the Wetaskiwin area (once in relation to each of beef and rye); (10) if yields of present grain crops decrease two Wetaskiwin operators would increase forage crops; (11) dependence on weather favourable for a good "catch" was mentioned once in the Red Deer area in relation to forage production.

In general the factors making planned increases in production of various farming enterprises uncertain were: in the Wetaskiwin area, lack of necessary capital, the price of the enterprise in the future, ability to provide required livestock feed or crop land and other factors; in the Red Deer area, ability to provide required livestock feed or crop land, lack of necessary capital, price of the enterprises in the future, insecure tenure, supply of needed labour and other factors.

D: Factors Making Planned Production Decreases Uncertain.-- Relatively few planned changes (16 in the Wetaskiwin area and five in the Red Deer area) were stated as uncertain decreases in production. In the Wetaskiwin area eight different factors were mentioned as contingencies; in the Red Deer area only three of these were mentioned.

The factors were as follows in both rural areas: (1) if the present (June-July, 1952) high price of beef continues, three Wetaskiwin and one Red Deer operator will sell out their beef cattle; (2) if the grain crop is poor and must be utilized as feed,

planned decreases in livestock will not be carried out (mentioned twice in the Wetaskiwin area in relation to hogs and mentioned three times in the Red Deer area in relation to each of beef cattle, hogs and dairy cattle); (3) if the operator has time in the future to handle the farm work, the planned decreases will not be carried out (mentioned once in the Wetaskiwin area in relation to dairy cattle and once in the Red Deer area in relation to forage crops).

Factors mentioned only in the Wetaskiwin area were: (4) if the price of the enterprise rises in the future the planned decrease will not be carried out (mentioned twice in relation to hogs and once in relation to rye); (5) if beef cattle prices cease to be relatively more profitable than hog or barley and oat prices, the planned decreases in hogs (mentioned twice) and in barley and oats (mentioned once) will not be carried out; (6) if disease in livestock or weeds in fields are controlled, then planned decreases in hogs (mentioned once) and in summerfallow acreage (mentioned once) will not be carried out; (7) if able to make needed barn improvements, planned decrease in dairy cattle (mentioned once) will not be carried out; (8) if it becomes unnecessary to pay high income taxes, the planned decrease in beef cattle (mentioned once) will not be carried out.

CONCLUSIONS CONCERNING FUTURE PATTERN OF AGRICULTURAL PRODUCTION IN THE STUDY AREAS

An examination of the nature of the proposed changes in farming enterprises with due consideration of the possibility of realizing these plans would indicate that, if these proposed changes are carried out as planned, by 1955 the present slight differences between the contribution of various farming enterprises to general farm income in each of the rural areas will tend to disappear. Then the chief sources of income from both rural areas will in all probability be beef cattle, hogs, dairy cattle, and grain followed by poultry and eggs, sheep, and forage seed. The proportion of farm income in each area contributed by miscellaneous enterprises such as bees, turkeys, geese, and potatoes will show very little increase.

There is little doubt that unforeseen factors could bring about many modifications in the future plans of farm operators. Counteracting this possibility is the general tendency for an established way of life, whether it be farming or some other occupation, to resist external pressures.

It is suggested that this study offers some awareness of the many factors which must be considered when an attempt is made to understand and predict economic behavior.

SUMMARY

As part of a larger study dealing with the factors involved in the choice of alternative farm enterprises in two mixed farming areas of Alberta, it was found that over three-fifths of the respondents did propose to make an average of two changes in their farming enterprises within the next two or three years.

Identification of attributes associated with farm operators who plan to make future changes in their farming enterprises indicates that in both rural areas a statistically significant association exists in that these men tend to be (1) less than 50 years of age (2) from farms rated as medium or high in labour efficiency (3) Canadian-born, and (4) from farms which were categorized as low or medium in terms of man equivalents. Some nine other attributes showed a slight but not significant association when correlated with intention to make future changes.

The proposed changes are predominantly directed at increasing production of current enterprises but there is some evidence of decreases in certain enterprises.

Slightly over one half of the planned increases in production were stated as "sure" of being carried out. Confirmation was obtained when several steps that had been taken to carry out these plans were described by the respondents. Some of these actions were: necessary livestock is being raised or purchased, necessary seed for desired crop increases has been planted or is on hand, necessary feed for livestock or acreage for crops has been acquired, necessary buildings are available, necessary labour requirement has been obtained.

Factors limiting the possibility of carrying out planned increases were stated as: insufficient capital, dependence on high and stable future prices, dependence on ability of operators to provide the necessary feed, pasture or crop land, and several other less frequently mentioned factors.

Planned decreases in production were described as "sure" just as frequently as they were described as uncertain of being carried out. The most commonly mentioned action that had been taken to ensure the planned decreases in production was to have taken steps to increase an alternative enterprise, for example dairy cattle were being replaced by beef cattle, and wheat by forage crops. Some factors that were mentioned as making planned decreases in production uncertain were: a fall in current beef prices would prevent some operators from selling out this enterprise; a grain crop of poor quality would necessitate using it as feed and so prevent the planned decrease in livestock; if the operator has more time in the future to handle his farm work the planned decreases would not be carried out.

From consideration of the number of farmers who planned changes in various farming enterprises and the degree of certainty associated with each planned change, it was concluded that the sources of income from agriculture in both rural areas would be very similar by 1955. At that time it is very probable that farmers in both areas will have as their chief sources of income beef cattle, hogs, dairy cattle, and grain, followed by poultry and eggs, sheep and clover seed. Some income will continue to be derived from bees, turkeys, geese, and potatoes.

APPENDIX A

Number, Direction, Type, and Combination of Farm Enterprises
 Which are planned to be Changed within the Next Two or
 Three Years, Farm Operators in Two Rural Areas,
 Alberta, June-July, 1952

	Farm Operators			
	Wetaskiwin		Red Deer	
	No.	%	No.	%
No changes planned	47	38.2	29	36.7
One change planned	25	20.3	23	29.1
Increase - hogs	2	1.6	8	10.1
Decrease - hogs	0	-	1	1.3
Increase - beef	8	6.5	8	10.1
Decrease - beef	2	1.6	0	-
Increase - dairy	3	2.5	2	2.5
Increase - forage	7	5.7	3	3.8
Increase - sheep	2	1.6	1	1.3
Increase - registered oat seed	1	0.8	0	-
Two changes planned	32	26.0	13	16.4
Increase - beef & forage	6	4.9	5	6.2
" - " & hogs	2	1.6	3	3.8
" - " & dairy	3	2.5	0	-
" - " & coarse grains	1	0.8	0	-
" - hogs & dairy	3	2.5	0	-
" - " & forage	2	1.6	0	-
" - dairy & forage	2	1.6	0	-
" - " & wheat	0	-	1	1.3
Increase beef; decrease dairy	3	2.5	0	-
" " ; " hogs	0	-	1	1.2
" " ; " coarse grains	1	0.8	0	-
" dairy ; " hogs	2	1.6	0	-
" " ; " beef	1	0.8	1	1.3
" forage ; " dairy	1	0.8	0	-
" " ; " summerfallow	0	-	1	1.3
" " ; " beef	1	0.8	0	-
" wheat ; " "	1	0.8	1	1.3
" " ; " rye	1	0.8	0	-
" hogs ; " summerfallow	1	0.8	0	-
" " ; " beef	1	0.8	0	-

- Continued -

Number, Direction, Type, and Combination of Farm Enterprises
 which are Planned to be changed within the Next Two or
 Three Years, Farm Operators in Two Rural Areas,
 Alberta, June-July, 1952 - Continued

		Farm Operators		
		Wetaskiwin	Red Deer	
		No.	%	
Three changes planned	12 9.8	10 12.7		
Increase - beef, hogs, dairy	1	0.8	1 1.2	
" - " , " , poultry	0	-	2 2.4	
" - " , " , forage	0	-	1 1.3	
" - " , " , flax	0	-	1 1.3	
" - " , " , wheat	1	0.8	0 -	
" - " , dairy, forage	0	-	1 1.3	
" - dairy, hogs, poultry	0	-	1 1.3	
" - " , " , forage	2	1.7	0 -	
" - " , poultry, forage	1	0.8	0 -	
" - " , wheat, coarse grains	1	0.8	0 -	
" - wheat, forage, coarse grains	1	0.8	0 -	
Increase forage, beef; decrease dairy	2	1.7	0 -	
" " , " ; " hogs	1	0.8	0 -	
" " , poultry; " wheat	1	0.8	0 -	
" " , hogs, " "	0	-	1 1.3	
" " , dairy, " "	0	-	1 1.3	
" beef , " ; " hogs, and				
	dairy	1	0.8	0 -
" wheat , " ; " beef, and				
	forage	0	0.8	1 1.3
Four changes planned	6 4.9	3 3.8		
Increase - dairy, poultry, beef, hogs	1	0.9	0 -	
" - " , " , forage, sheep	1	0.8	0 -	
" - " , sheep, hogs, flax	1	0.8	0 -	
" - hogs, beef, forage, poultry	0	-	1 1.2	
" - " , " , " , red fescue	0	-	1 1.3	
Increase hogs, dairy, sheep; decrease				
	dairy	1	0.8	0 -
" " , " , forage; decrease				
	summerfallow	0	-	1 1.3
" dairy, wheat, " ; decrease				
	hogs, forage	1	0.8	0 -
" beef, forage, " ; decrease				
	hogs, dairy	1	0.8	0 -
Five changes planned	1 0.8	1 1.3		
Increase beef, dairy, forage; decrease				
	wheat, summerfallow	1	0.8	0 -
" forage; decrease hogs, beef,				
	dairy, poultry	0	-	1 1.3
Total	123	100.0	79 100.0	

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